TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION Effective July 1, 2011
WIN-789

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **December 2011**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Heritage Wood Operating Push Out Casement Windows, Individual, Non-Impact Resistant, manufactured by

Kolbe & Kolbe Millwork Co., Inc.
1323 South Eleventh Avenue
Wausau, WI 54401
(715) 842 - 5666

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The Heritage wood operating push out casement windows evaluated in this report are non-impact resistant. This product evaluation report is for wood operating push out casement windows based on the following tested constructions:

General Description:

System	Description	Label Rating	Hallmark Certification
1	Heritage Push Out Casement Operator	C-C50 36 x 72 CW-PG50 36x72 – C	413-H-1084.00 413-H-1084.01
2	Heritage Push Out Casement Operator	C-C50 36 x 72 CW-PG55 36x72 - C	413-H-1087.00 413-H-1087.01
3	Heritage Operating ½ Circle Top Push Out Casement with Tri-Euro Hinges and Single Point Lock	C-C40 36 x 72	413-H-955.00 413-H-955.01 413-H-955.02
4	Heritage Operating ¼ Circle Top Push Out Casement with Tri-Euro Hinges and Multi-point Lock	C-C45 36 x72	413-H-956.00 413-H-956.01 413-H-956.02
5	Heritage Operating Segment Head Push Out Casement with Tri-Euro Hinges and Single Point Lock	C-C50 36 x 72	413-H-959.00 413-H-959.01 413-H-959.02

General Description:

System	Description	Label Rating	Hallmark Certification
6	Heritage Operating ¼ Circle Top Push Out Casement with Tri-Euro Hinges and Two Single Point Locks	C-C40 36 x 72	413-H-957.00 413-H-957.01 413-H-957.02
7	Heritage Operating ½ Circle Top Push Out Casement with Tri-Euro Hinges and Multi-point Lock	C-C60 36 x 72	413-H-975.00 413-H-975.01 413-H-975.02
8	Heritage Operating Segment Head Push Out Casement with Tri-Euro Hinges and Multi-point Lock	C-C65 36 x 72	413-H-977.00 413-H-977.01 413-H-977.02

Product Dimensions:

System	Overall Size	Sash Size	Glass Size(s)
1	36” x 72”	34 1/16” x 70 1/16”	29 13/16” x 65 3/16”
2	36” x 72”	34 1/16” x 70 1/16”	29 13/16” x 65 3/16”
3	36” x 72”	34 1/16” x 70 1/16”	31 ¼” x 67 ¼”
4	36” x 72”	34 1/16” x 70 1/16”	29 13/16” x 65 13/16”
5	36” x 72”	34 1/16” x 70 1/16”	31 ¼” x 67 ¼”
6	36” x 72”	34 1/16” x 70 1/16”	31 ¼” x 67 ¼”
7	36” x 72”	34 1/16” x 70 1/16”	29 13/16” x 65 3/16”
8	36” x 72”	34 1/16” x 70 1/16”	29 13/16” x 65 3/16”

Glazing Description:

System	Glass Construction [1]	Glazing Method [2]
1	IG-1	GM-1
2	IG-1	GM-2
3	SG-1	GM-2
4	IG-2	GM-2
5	SG-1	GM-2
6	SG-1	GM-2
7	IG-2	GM-2
8	IG-2	GM-2

Note: [1] See the “Glass Construction Key” for the glass construction.

[2] See the “Glazing Method Key” for the glazing method description.

Glass Construction Key:

IG-1: Sealed insulating glass unit. The sealed insulating glass unit is comprised of two 5/32” annealed glass lites separated by a desiccant filled stainless steel spacer system. The glass thickness and type in the insulating glass units of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-02.

IG-2: Sealed insulating glass unit. The sealed insulating glass unit is comprised of two double strength ($\frac{1}{8}$") annealed glass lites separated by a desiccant filled stainless steel spacer system. The glass thickness and type in the insulating glass units of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-02.

SG-1 Single glazed with a nominal ($\frac{1}{4}$") annealed glass lite. The glass thickness and type of the glass lites in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-02.

Glazing Method Key:

GM-1: The insulating glass unit is set from the interior against a bed of silicone sealant backbedding with a $\frac{1}{2}$" glazing bite. Another silicone bead is run full length at the bottom of the insulating glass unit before the wood glazing bead is set. Wood glazing stops are utilized along the interior and are secured with brads spaced approximately 2 inches from each end and approximately 8 inches on center.

GM-2: The insulating glass unit or the glass lite. is set from the interior against a bed of silicone sealant backbedding with a $\frac{1}{2}$" glazing bite. Wood glazing stops are utilized along the interior and are secured with brads spaced approximately 2 inches from each end and approximately 5-6 inches on center.

Frame Construction: The frame members consist of molded Ponderosa pine. The frame corners are rabbeted, butted, sealed with silicone, and secured with staples. Interior wood stops are secured to the window frame with staples. The brickmould is secured to the side jambs and to the head with autonail wires. The brickmould is mitered and secured with two nails per corner. The sill nosing is secured to the brickmould with one screw per corner and to the frame sill with glue and T-nails.

Sash Construction (System 2): The sash members consist of Ponderosa pine. The sash corners are open mortise and tenon construction, glued, and secured with brads and screws. A euro-groove is molded into the edge of the lock stile which the lock hardware is installed.
Sash Construction (System 3): The sash members consist of Ponderosa pine. The sash corners are open coped and butted construction, glued, and secured with screws. The stiles and top radius was one continuous finger jointed piece.
Sash Construction (Systems 4 and 6): The sash members consist of Ponderosa pine. The sash corners are open mortise and tenon construction, glued, and secured with brads and screws. The top radius corner was coped and butted construction and secured with screws.
Sash Construction (Systems 1, 5 and 7): The sash members consist of Ponderosa pine. The sash corners are open mortise and tenon construction, glued, and secured with brads and screws.
Sash Construction (System 8): The sash members consist of Ponderosa pine. The sash corners are open coped and butted construction, glued, and secured with screws.

Hardware:

- Single-point lever locks with metal pocket keepers (Systems 1, 3, 5, 6); Two (2) required; Located on the side jamb.
- Handle activated three-point lock with metal keepers (System 2); One (1) required; Located on the side jamb.
- Concealed two-piece metal snubber (Systems 1 and 2); Three (3) required; Located on the hinge stile and the side jamb.
- Truth 14" 2-bar friction hinge (Systems 1 and 2); Two (2) required; Located on the frame head and sill.

Hardware (continued):

- Tri Euro hinges (Systems 3, 5); Four (4) required: Located on the side jamb.
- Truth 10" friction adjuster (Systems 3, 4, 5, 6, 7, and 8); Located on the sill; One (1) required.
- Hoppe single actuated 3-point lock with metal keepers; One (1); Located on the side jamb and sash. (Systems 4, 7, and 8)
- Tri Euro hinges (Systems 4, 6, 7, and 8); Four (3) required: Located on the side jamb.

Product Identification:

Systems 1 thru 2: A certification program label (WDMA Hallmark Certified) will be affixed to the window. The certification program label includes the manufacturer's name; product name; performance characteristics; the approved inspection agency (WDMA); and the applicable standards: AAMA/NWWDA 101/I.S.2/A440-05 and AAMA/WDMA/CSA 101/I.S.2/A440-08.

Systems 3 thru 8: A certification program label (WDMA Hallmark Certified) will be affixed to the window. The certification program label includes the manufacturer's name; product name; performance characteristics; the approved inspection agency (WDMA); and the applicable standards: AAMA/NWWDA 101/I.S.2/NAFS-02 and AAMA/WDMA/CSA 101/I.S.2/A440-05.

LIMITATIONS

Design pressures (DP):

System	Overall Width (in.)	Overall Height (in.)	Design Pressure (psf)
1	36	72	± 50
2	36	72	± 55
3	36	72	+40/-45
4	36	72	± 45
5	36	72	± 50
6	36	72	+50/-40
7	36	72	+60/-65
8	36	72	+65/-70

Impact Resistance: This window assembly does not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. This window assembly will need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

Acceptance of Smaller Assemblies: Window assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

Tested Higher Negative Design Pressure (Systems 3, 7, and 8): The WDMA label indicates that the product was tested to a higher negative pressure. The higher negative design pressure is specified in the table above and on the WDMA label.

INSTALLATION INSTRUCTIONS

General: The window assembly shall be prepared and installed in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

Installation:

Option 1: The window assembly shall be fastened to minimum Southern Yellow Pine lumber. The window assembly is secured to the wall framing using Kolbe & Kolbe metal installation clips. The installation clips (1 5/8" x 10 1/16" x 0.04") are secured to the window frame side jambs, head, and sill. The clips are secured to the window frame with two (2) No. 8 x 3/4" screws. The clips are secured to the wall framing with one (1) No. 8 x 1 3/4" screw. The fasteners shall be long enough to penetrate a minimum of 1 1/2" into the wall framing. The spacing of the clips is specified in the table below.

Installation Clip Spacing:

System	Distance From Each Corner	Head (on center spacing)	Sill (on center spacing)	Side Jambs (on center spacing)
1	Head/Sill: 18" Side Jambs: 14 7/16"	None	None	14 7/16"
2	Head/Sill: 18" Side Jambs: 14 7/16"	None	None	14 7/16"
3	18"	None	None	18"
4	18"	None	None	18"
5	18"	None	None	18"
6	18"	None	None	18"
7	18"	None	None	18"
8	18"	None	None	18"

Option 2: The window assembly shall be fastened to minimum Southern Yellow Pine lumber. The window assembly is secured to the wall framing using the window frame with minimum No. 10 screws. The fasteners shall be long enough to penetrate a minimum of 1 1/2 inches into the wall framing. The spacing of the fasteners is specified in the table below.

Fastener Spacing:

System	Distance From Each Corner	Head (on center spacing)	Sill (on center spacing)	Side Jambs (on center spacing)
1	12"	12"	12"	12"
2	12"	12"	12"	12"
3	14 1/2"	12"	12"	12"
4	14 1/2"	12"	12"	12"
5	14 1/2"	12"	12"	12"
6	14 1/2"	12"	12"	12"
7	18"	18"	18"	18"
8	14 1/2"	12"	12"	12"

Brickmould: The brickmould is secured to the wall framing with 2" long T-nails spaced approximately 24 inches on center.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.